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999 Oakmont Plaza Drive • Suite 420 • Westmont, Illinois 60559 • (630) 371-1800 • Fax: (630) 371-1818 • www.parsons.com

July 15, 2002

Mr. John Sherrill
Manager, State Sites Unit
Illinois Environmental Protection Agency
Bureau of Land
1021 North Grand Avenue East
Springfield, Illinois 62794-9276

Re: Review of Compliance with the Agreed Order for Immediate and Preliminary Injunction with Defendant Lockformer
Lockformer Site
Lisle, DuPage County, Illinois

Dear Mr. Sherrill:

We are enclosing our review of compliance with the Agreed Order for Immediate and Preliminary Injunction with Defendant Lockformer (Agreed Order). Per your request, we specifically evaluated compliance with requirements 10, 12, and 13 of the Agreed Order. Each of the Agreed Order items is included below.

COMPLIANCE REVIEW

10. *Within fourteen (14) days of the entry of this Agreed Order, Lockformer shall submit a Comprehensive VOC Investigation Work Plan ("Work Plan") including timetables. The Work Plan shall include, but not to be limited to, the installation of eight on and off-site monitoring well clusters. Each well cluster shall consist of a shallow (upper aquifer) and deep (bedrock) monitoring well. The monitoring wells shall assist in determining the rate and flow of groundwater and extent of contamination. The Work Plan shall also include the pump test of the lower aquifer utilizing the on-site production well. Wells screened in the upper and lower aquifer shall be monitored during the pump test for changes in groundwater elevation. One angle hole boring shall be drilled into bedrock and an assessment of bedrock master point characteristics shall be performed or Lockformer shall suggest an alternative technique, subject to review and approval of the State, to determine bedrock fracture characteristics.*

Eight well clusters have been installed on Lockformer's property (the Site) as specified in the Agreed Order. Additional investigation was also performed in accordance with the *Comprehensive VOC Investigation Work Plan* that was approved by the Illinois EPA on June 28, 2001.

No pump test has yet been performed at the Site. Because of information that has come to light over the past year as a result of on-going investigations, Parsons now recommends that this pump test be performed not on the on-site production well, but instead on a recently installed deep bedrock well located at the southern boundary of the Site. (Lockformer may wish to pump test the on-site production well in addition to the southern boundary well, but it is the southern boundary well that will likely yield results that are of most interest to the Illinois EPA). The results of this test will likely prove useful in evaluating and designing a groundwater remedy for the Site.

No angled-hole boring has yet been installed at the Site. Because of data that has been generated from multiple vertical bedrock wells over the past year, Parsons no longer believes the installation of this boring is necessary.

12. *Within seven (7) days of completion of the Comprehensive VOC Investigation, Lockformer shall prepare and submit a Comprehensive VOC Investigation Report to the State for review. Review shall determine whether the investigation and report fully determines the nature and extent of the on and off site contamination. The Comprehensive VOC Investigation Report shall include, but not be limited to:*

Lockformer submitted the Comprehensive VOC Investigation Report to Illinois EPA on May 10, 2002. Parsons formally submitted our review of this report to the Illinois EPA on July 3, 2002. As to the specific report elements required by the Agreed Order:

A) Executive Summary: This shall identify the objectives of the Site investigation and the technical approach utilized to meet such objectives. It shall state whether recognized environmental conditions were identified and the data limitations in the assessment;

The stated objective of Site investigation was to determine the extent of contamination in soil and groundwater of constituents of concern attributable to the Site. The Site has not been fully characterized yet and the objective of investigation has not been met. Additional investigation to address this limitation is proposed in the *Lockformer Work Plan, Clayton, April 5, 2002.*

The technical approach, described in Section 1.2, is an appropriate approach for defining the nature and extent of contamination.

A list of recognized environmental conditions were included in Section 1.3. Not all of these identified source areas have been characterized to the same extent.

Data limitations, described in Section 1.4, are related to investigation data gaps. Investigation that will address identified data gaps is described in *The Lockformer Work Plan, Clayton, April 5, 2002.* It is expected that this work

plan will be approved soon, and will include investigation of all identified data gaps.

B) *Site Characterization. This shall identify the compilation of all sources reviewed and information obtained as a result of the investigation including existing information from previous studies and not including but not limited to:*

1) *Sources consulted or reviewed. This shall contain a list of reference documents in completing the investigation;*

This requirement has been appropriately addressed in Section 2.1.

2) *Site history. This shall present a chronological summary of the historic uses of the remediation site as prescribed by "Standard Practice for Environmental Assessments: Phase I Environmental Site Assessment Process" (ASTM E 1527-94)*

Site history has been adequately described in Section 2.2.

3) *Area of Impact description of the soil and groundwater plumes. This shall describe the regional location, pertinent boundary features, general facility physiography, geology, hydrogeology, existing and potential migration pathways and exposure routes, and current and post-remediation uses of the impacted and surrounding areas. Information from the Geological Survey and private and public well information should be incorporated.*

Regional location, pertinent boundary features, general facility physiography, geology, hydrogeology, and the current use of the impacted and surrounding area have been adequately described in Section 2, Site Characterization.

Existing and potential migration pathways and exposure routes are described in Section 7, Endangerment Assessment. St. Joseph Creek was not identified as a potential receptor and surface water impact was not considered as an additional exposure pathway. These should be addressed in the revised report.

Post-remediation use of the impacted and surrounding areas is not described in the report, and should be included in the revised report.

4) *Site base maps of sufficient detail and accuracy to show all of the following:*

a) *A distance of at least 2,000 feet around the impacted area at a scale no smaller than one inch equal 200 feet;*

An adequate figure has been provided in the report.

b) *Map scale, north arrow orientation, date, and location of the site with respect to township, range and section;*

An adequate figure has been provided in the report.

c) *Site boundary lines, with property adjacent to the impacted area clearly indicated, if reasonably identifiable;*

An adequate figure has been provided in the report.

d) *Surrounding land uses;*

An adequate figure has been provided in the report.

e) *Sources or potential sources of contaminants of concern, spill areas, and other suspected areas for any or all contaminants of concern;*

Figures 2.4.3-1 and 2.4.3-2 adequately depict existing or potential source areas. (No rationale is provided in the report for including off-site locations as potential contamination sources, but no such rationale is explicitly required by the Order).

f) *On-site and off-site withdrawal wells including past wells believed to have been abandoned; and*

Figure 2.4.4-1 is adequately showing areas where residential water wells are used. However, public water supply wells listed in Table 2.4.4-1 were not shown on this figure, and should be added.

g) *All buildings, tanks, piles, utilities, paved areas, easements, right-of-ways and other features, including all known past and current product and waste underground tanks or piping.*

The above listed features have been adequately depicted in the report.

5) *A legal description or reference to the plat showing the boundaries of the remediation site;*

A legal description has been provided.

C) *Comprehensive sampling plan. This shall indicate those physical and chemical methods utilized for contaminant source investigations, soil and sediment investigations, hydrogeological investigations, surface water investigations, and potential receptor investigations.*

Investigations of contaminant sources were adequately described in Section 4. Soil, sediment, and groundwater sample analyses were adequately described in Section 3. The hydrogeologic investigation was adequately described in Section 4. No surface water investigation was presented in the report, and should be addressed by a future investigation. Potential receptors were described in Section 7. St. Joseph Creek was not identified as a potential receptor, and should be added.

D) *Documentation of field activities. This shall include the results of the field activities to determine physical characteristics. At a minimum, this chapter shall include the following elements:*

1) *Narrative description of the field activities conducted during the investigation;*

Field activities were adequately described in Section 4.

2) *The quality assurance project plan utilized to document all monitoring procedures performed during the investigation, so as to ensure that all information, data and resulting decisions are technically sound, statistically valid, and properly documented; and*

The quality assurance project plan was adequately described in Section 5. The validation report for several QC samples has yet to be submitted.

3) *Presentation of the data in an appropriate format such that all the information is organized and presented logically and that the relationship between different investigations for each medium are apparent.*

Throughout the report, the data have been presented in an organized and logical manner. However, Parsons does not agree with several conclusions drawn in the report, as noted in our comment letter (submitted under separate cover).

E) *Endangerment Assessment. This shall analyze the results of the field activities and characterize the extent of contamination, quantitative and qualitative, for contaminants of concern and compare the impacted area information with applicable provisions of 35 Ill. Admin. Code 742. This chapter shall:*

1) *Describe any recognized environmental conditions, evaluate exposure routes, including threatened releases, and evaluate exposure routes excluded under 35 Ill. Admin. Code 742;*

Recognized environmental conditions were adequately described using the currently available information. Results of the proposed new investigative

work should be used to further refine the description of the recognized environmental conditions.

Surface water impacts (not currently discussed in this report) should be addressed as an exposure route.

2) *Describe and map the nature, concentration, and extent of concern within all environmental media and assess the observed and potential fate and transport;*

Contaminant nature and extent within all environmental media were adequately described, given the currently available data. Parsons does not believe that fate and transport are effectively modeled as described in this report, for reasons that are detailed in a separate, July 3rd letter that has been submitted to Illinois EPA.

3) *Describe the significant physical features of the remediation site and vicinity that may affect contaminant transport risk to human health, safety, and the environment; and*

Two physical Site features that may affect contaminant transport include former surface drainage and the sanitary sewer. Both of these features will be the subjects of future investigation at the Site.

4) *Compare the concentrations of the contaminants of concern with the corresponding Tier 1 soil and groundwater remediation objectives under 35 Ill. Admin. Code 742;*

An appropriate comparison has been presented in the report.

F) *Conclusion. This shall assess the sufficiency of the data in the report and recommend future steps;*

This information has been adequately submitted.

G) *Appendices. References and data sources, including but not limited to field logs, well logs, and reports of laboratory analyses, shall be incorporated into the appendices;*

This information has been adequately submitted.

13. *Within fourteen (14) days of receipt of the State's written determination that the results of the Comprehensive VOC Investigation Report fully determine the nature and extent of contamination, Lockformer shall develop remediation objectives for remediation of soil, groundwater and surface water contamination, both on Site*

and off Site, which is attributable to the Defendants, and submit a Remediation Objectives Report.

The nature and extent of Site contamination has not yet been fully determined; however, additional investigations are ongoing. No remediation objectives have yet been developed for the Site, although these objectives are the subject of ongoing discussions amongst Lockformer, USEPA, and Illinois EPA.

Please call us if you would like to discuss these issues further. You may call us at 630/371-1800.

Sincerely,

PARSONS CORPORATION

Sasa Jazic
Project Engineer

Richard M. Frendt, P.E.
Technical Director

SJ/RMF:tme
Enclosure
File: 739452